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## **REMARKS**

Claims 36-37, 40-62 and 76-82 are pending in the present application. Reconsideration of the pending claims is respectfully requested for the reasons discussed below.

In the Final Rejection mailed February 6, 2006, the Examiner has maintained rejection of the claims 1-22 under 35 U.S.C. § 102(b) as being anticipated by Croft, U.S. Patent No. 5,688,860. In the latest Office Action, the Examiner again states:

Distinction between the various reactive materials employed in the making of the isocyanate reactive component are not evident in the claims nor are the distinctions between final products evident by limitation in the claim. Distinction of applicants' invention based on the oils being blown is not seen to be evident, as distinction based on such in the final resulting product is not seen to be evident. Additionally, the materials and reactants as well as intermediates employed in the making of the products are seen to read on esterification to the degree defined by the claims such that claims to products containing such recitations are not seen to distinguish over the teachings of Croft.

In a brief conversation with the undersigned on March 27, 2006, the Examiner suggested that a reference or references other than a Declaration showing how blowing soybean oil adds hydroxyl groups and/or yields a different final product would overcome his concerns.

Applicants respectfully submit that the present claims are not anticipated by the '860 patent. "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). The '860 patent does disclose the use of soybean oil as a plasticizer, which, according to the '860 patent, "is preferably selected so as to be essentially inert with polyurethane/polyurea reaction products." ('860 patent, col. 11, lines 46-47). The '860 patent does not disclose a blown vegetable oil let alone the blown vegetable oils presently claimed. As discussed in the previous Response, blowing the presently claimed blown vegetable oils: blown rapeseed oil, blown palm oil, blown cottonseed oil, and blown soy oil, increases their number of hydroxyl groups.

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The mechanism for blowing soybean oil to increase hydroxyl content is shown in, for example, Römpp Online Dictionary, Georg Thieme Verlag, "Autoxidation," July 2004. The mechanism is the following:

Chain Growth:

(1) 
$$R^+ + O_2 -----> ROO^+$$
  $k_1: 10^9 \mid mol^{-1} s^{-1}$  (2)  $ROO^+ + RH -----> ROOH + R^+$   $k_2: 10-60 \mid mol^{-1} s^{-1}$ 

$$(3) RO^+ + RH ----> ROH + R^+$$

Chain Branching:

(4) ROOH ----> 
$$RO^+ + ^+OH$$
  
(5)  $2ROOH$  ---->  $ROO^+ + RO^+ + H_2O$ 

Additionally, hydroxyl groups are the typical reactive sites used in forming urethanes. This is generally discussed at p. 8 of "Polyurethane Handbook," by Günter Oertel, which states:

OH group-containing compounds (8) are by far the most important reactants for isocyanates [3, 6]. They are added under mild conditions to the isocyanates, forming carbamic acid esters (9). Primary alcohols, secondary alcohols, and phenols show a decreasing reactivity in that sequence.

$$R - N = C = O + R' - OH = R - NH - C - OR'$$
(1) (8) (9)

Applicant believes the above information demonstrates that (1) blown soybean oil has increased functionality (OH groups); and/or (2) the increased number of hydroxyl groups, which are reactive groups in urethane formation, would result in a different final product.

Additionally, with respect to claims 36, 55, 76, and 82 (and those claims that depend therefrom) Applicants also respectfully submit that the '860 patent to Croft does not disclose or suggest all of the presently claimed limitations of the claims. For example, independent claim 36 requires an esterified polyol that is the reaction product of a <u>blown</u> vegetable oil, specifically a blown palm oil, a blown safflower oil, a blown canola oil, a blown soy oil, a blown cottonseed oil, or a blown rapeseed oil and a first polyol, where the first polyol itself is

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the reaction product of a multifunctional alcohol and a second multifunctional compound. Regarding independent claim 82, the presently pending claim requires "a blown, modified crude soybean oil." The modified crude soybean oil is the reaction product of: (1) a crude soybean oil and (2) a second polyol, which itself is the reaction product of a third multifunctional alcohol and a fourth multifunctional alcohol. The "blown, modified crude soybean oil" is the modified crude soybean oil that has been subsequently blown.

The Applicant has made a concerted effort to place the present application in condition for allowance, and a notice to this effect is earnestly solicited. In the event there are any remaining formalities or other issues needing Applicant's assistance, Applicant requests the Examiner to call the undersigned attorney at (616) 949-9610.

Respectfully submitted,

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